

FREE

WWW.PERFORMANCEPCANADA.COM

JULY 1999

VOL. 2 NO. 7

Performance PC

CANADA'S NEXT GENERATION COMPUTER LIFESTYLE MAGAZINE



Motorola V600 ***Camera Phone***

- **Knoppix: Linux On-the-Fly**
- **Nintendo GameCube**
- **PHP - ASP Comparison**



Combine two broadband connections! Increase your bandwidth!

TWIN WAN PRODUCT LINE



XC-DFG693
TWIN WAN DNS TO IP VPN GATEWAY



XC-DFG402



XC-DFG582



XC-DFG692



XC-DFG693

DSL, Cable, and/or T1

Features:

- Inbound Load Balancing
- Built-in Authoritative DNS
- Load Balancing VPN Tunnels
- High Performance NAT Gateway
- Hardware-Based SPI Firewall
- DHCP Server & Multiple DMZ
- URL Blocking & Virtual Servers
- SNMP Remote Management
- 5-year Warranty with Tech Support & Firmware Updates

When utilizing the combined bandwidth of two separate broadband connections at the same time, the Xincom Twin WAN Gateway truly brings you the *T1 alternative!*

Overview:

Xincom's Twin WAN family of products provide a secure and reliable connection to the Internet and corporate network, connectivity to small branch offices and small to medium sized businesses. These networking gateways have dual WAN ports that allow you to connect two separate broadband connections of any type, including Cable, DSL, and/or T1 for ultimate automatic failover, and load balancing. With cutting edge features like NAT, SPI Firewall, DHCP server, and Access Filters makes this a must have for any network.

TWIN WAN PRODUCTS

XC-DFG402 TWIN WAN ROUTER w/ 12 Mbps throughput	\$89.99 USD
XC-DFG582 TWIN WAN ROUTER w/ 44 Mbps, QoS, & UPnP	\$299.99 USD
XC-DFG693 TWIN WAN VPN GATEWAY w/ 44 Mbps, QoS, UPnP & VPN	\$399.99 USD
XC-DFG692 TWIN WAN DNS TO IP GATEWAY w/ 44 Mbps, Inbound LIS, Authoritative DNS, & VPN	\$799.99 USD
XC-DFG693 TWIN WAN DNS TO IP VPN GATEWAY w/ 44 Mbps, Inbound LIS, Authoritative DNS, & VPN	\$999.99 USD


xincom
Visit www.xincom.us

Specs/Features are subject to change without notice. The T1 alternative, *T1 Alternative*, and cutting edge innovations, are trademarks or registered trademarks of Xincom Inc. in the United States and/or other countries. Xincom is a registered trademark. Copyright © 2004 Xincom, Inc. All rights reserved.

Connectivity

Motorola V600 Camera Phone 8

Entertainment

Nintendo GameCube 18

The Legend of Zelda: The Wind Walker 18

Computing

Knoppix Linux On-the-Fly 22

Career/Lifestyle

PHP - ASP Comparison 27

Columns

Publisher's Pick - Top Ten Book List 29

Company Directory 30

Senior Writers

Keith Johnough-Roberts

Eduard Klement

André Gauthier

writer@performancepcmedia.com

Associate Publisher / Art Director

Shelly Bo

shelly@performancepcmedia.com

President / Publisher

Jonice Prol

publisher@performancepcmedia.com

Ad Sales

Jonice Mellich

sales@performancepcmedia.com

Ad Coordinator

ads@performancepcmedia.com

Business

distribution@performancepcmedia.com

For information on advertising, Call 604-528-8000
#200, 102 East St. Vancouver BC Canada V6A 1E3

PerformancePC (PerformancePC.com) is a general computer publication that is published monthly. Each edition contains 100 pages. The columns are composed from material that has been submitted by our readers and contributors. We do not guarantee to publish any unsolicited material or any material that may be infringing on other people's rights. We do not accept unsolicited manuscripts or illustrations in electronic or otherwise format. We do not accept any material that may be offensive to any group of people.

The author retains the entire value of compensation and retains the copyright for the material submitted if any part of PerformancePC's publication is reproduced. Special permission has been granted by the author of "How to Create a

Visit www.performancepcmedia.com to enter
the contest by your choice to

WIN

a mini pocket
digital camera from

Subscribe to
PerformancePC
Canada's Internet Information Source
NOW!

Please send information on PerformancePC.
One year subscription \$29.95/CD

Indicating the following by Home Business Product Business Services

Home Product

Business Product

Business Name _____

Name of subscriber _____

City/City and postal code _____

Address _____

City _____

Prov/State _____

Phone number _____

Ext _____

Indicate your interest in the following:

Please send the form to: PerformancePC, 102 East St. Vancouver BC, Canada V6A 1E3. (604) 528-8000 Fax (604) 528-8001 www.performancepcmedia.com Tel (604) 528-8000

8

16



info@skywaywest.com www.skywaywest.com

604 482 1225

Full service Internet Service Provider

- Reliable Access and Excellent Service
- Power-up your LAN with Business Class ADSL, Wireless and Fiber Access
- Internet phone and Private Networks
- Co-locations, Web and FTP Hosting
- Email and Domain Name Services

Surrey BC and Alberta

Since 1996

It's hot - inside and hot

By Joshua Paul



PerformancePC's growth continues to be hot hot hot! The publication continues to grow and attract new readers and advertisers! We'd like to welcome FairPort, Leeksmen PC, and Medisonic to our July issue! Thank You guys!

In other exciting developments, our team has been researching what readers want, and we are pleased to announce the following editorial sections: Connectivity, Computing, Entertainment, and CancerLifestyle.

Connectivity will profile the Internet, networking, wireless connectivity and cell phones. The Computing section will focus hardware and software. For the Entertainment section we will look at games, movies and music, and in CancerLifestyle we will look at education choices, ergonomics, and how we interact with computers.

With the hot dry weather comes the problem of keeping server rooms cool. One solution that caught my attention

with an impressive display was Novac 1230 by 3M (see <http://www.3m.com/ksm/US/en/24810krFR/view.html> for more info).

This product is a liquid at room temperature - and has properties such that a running laptop can be completely immersed in the liquid and the laptop will continue running. When I saw that demonstration on TV I immediately wondered about the cooling potential of this product.

After talking with 3M representatives I learned that they were thinking about the same things. I told them how I imagined being able to plug my laptop into a cooling network - that would pipe a liquid such a Novac 1230 through my laptop. They said such a thing would be possible in the future - and though it would not be Novac 1230 - it would be a related product belonging to the same family.

We hope you enjoy reading this issue as much as we enjoyed making it. We welcome any comments or suggestions you might have. Please email me at publisher@performancepc.ca. ■

Want Internet and Long Distance Service without the Headaches?

Your World

**HIGHSPEED INTERNET
SAVE \$10 PER MONTH**

\$24.95/mo.*

24/7 Alberta On Call Service

1994 - 2004
Celebrating 10 years
Serving
Western Canada



WHY WE'RE BETTER

- No Sign-up Fees
- No Hidden Costs
- Real People
- Great Service & Support

- Web based Email
- Personal/Family Web Pages

Includes free modem
(not available in most areas)

See our website for details
Offer Expires Soon - Sign Up Today!



LightSpeed
COMMUNICATIONS

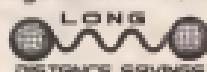
604-482-1190

www.lightspeed.ca | info@lightspeed.ca

Supreme Residential ADSL Available

For more information, visit www.lightspeed.ca or call 604-482-1190

Crystal Clear Voice



COMPARE OUR RATES

- 5 cents in Canada
- 6 cents to the U.S.
- 7 cents to the U.K.
- 7 cents to Hong Kong

- Call anytime of Day
- Dial direct every time

**Switch your Long Distance
& Get \$10 in Free Calling!**

+ Add Unlimited Internet for \$1.95/mo.



**0 Carbs
0 Calories
100% FatPort**

Available in the finest cafes, hotels and restaurants.
www.fatport.com/pc • 1-888-FATPORT

FatPort Directory in Vancouver

Abu Cafe	604-812-7682	1200 Georgia
Banana City	604-431-8544	5003 - Joyce St
Barc Around the World Deli	604-736-1022	1045 Cambie Street
Barc Around the World Mass	604-812-8180	2050 West Georgia
Berry's Bagels	604-529-4668	2633 West Broadway
Bennett - Bistro Room	1-866-339-7678	505 Burrard Street
Bennett - Patisserie	1-866-339-7678	505 Burrard Street
Bent Whistle Bistro	604-822-1821	1795 Davie Street
Bistro Milano	604-822-2169	1183 Granville Street
Blue Pomegranate	604-888-1113	2808 West 16th Avenue
Calligrapher Cafe	604-731-7652	3353 West Broadway
Club & Water Lobby	604-581-5700	800-805 West Georgia Street
Cross Hotel - Vancouver	604-828-2711	1703 Cambie Street
Cross Hotel - Vancouver Airport	604-593-4555	1041 150th Avenue Drive
Cow Cow Cafe	604-588-2121	471 Davie Street
Cuppa Joe - 4th & Alber	604-234-6287	2050 - 2052 Alber Street
Cuppa Joe - East Broadway	604-824-6282	138 East Broadway
DRS	604-681-4288	515 Davie Street
Eats - Broadway & Laurel	604-734-5885	901 West Broadway
Eats - Pitt Street	604-736-5880	1801 Pitt Street
Eats - Robson	604-850-0000	1186 Robson Street
eBusiness Connection	604-775-7343	Suite 102, 601 West Cordova St.
Engines	604-221-2588	4387 West 16th Avenue
Goldman Photo	604-688-2732	Unit 17 - 200 Burrard Street
Granville Island	604-871-5280	6280 Granville Street
Granville Lunchroom	604-534-7893	2555 West 16th Ave
Happy Lin Internet Cafe	604-684-3438	458 West Broadway
Harbour Centre	604-688-1671	555 West Hastings Street
Harbour Centre Food Court	1-866-539-7678	555 West Hastings Street
Harbour Centre Lookout	604-689-0421	555 West Hastings Street
Holly's Kitchen Restaurant	604-730-4255	2941 West 4th Ave
Holiday Inn Express	604-688-3041	1081 Granville Street
Imperial Tea House	604-688-3170	870 West Cordova St
Jack Pfeifer	604-688-6792	717 East Cordova
Jane Isaacs - Robert	604-682-8551	171 Robson Street
Jane Isaacs - West Broadway	604-733-0751	3408 West Broadway
Legal Mews	604-438-5580	56 Kingsway
Louie's Cafe	604-684-8441	1330 Robson Street
Macmillan Inc - Yaletown	604-823-6251	250 11th Street
Macmillan Cafe	604-823-6252	1314 Robson Street
Macmillan Whistler	604-881-2126	1030 Mountain Street
Maison's French Pastry	604-684-8882	811 Granville Street
One Hotel	604-824-2187	256 Davie Street
Scandinavian Bistro - Central 6	604-881-8144	551 Robson Street
Scandinavian Bistro - Poco on Davie Building	1-866-329-6219	401 Robson Street
Scandinavian Bistro - West	1-866-329-7678	1051 West Georgia Street
Scandinavian Bistro - South Granville	604-821-0416	2108 Granville Street
Scandinavian Bistro - West Broadway	604-685-6511	225 West Broadway
Scandinavian Bistro - West Georgia	604-824-2708	405 West Georgia St.
Scandinavian Bistro - Whistler	604-881-7983	1037 Mountain Street
Seas Cafe	604-873-1783	2538 Main Street
Shemanski's Brewing Co	604-681-9151	501 West Cordova
The Mill Manci Bistro	604-687-2455	1088 West Cordova St
The Yuzu II Coffee Bean	604-731-0111	1011 1585 West Broadway
Toronto's Kitchens	604-267-1003	2154 West 4th Street
Townhouse West Windows	604-823-4781	1880 Marine Drive
Ward's Internet Cafe	604-815-8827	343 Robson Street
West One - Vancouver	604-688-1666	433 Robson Street
White Sun - George - Yaletown	604-687-3873	994 West Georgia St
White Sun - George - Cordova	604-681-6034	1916 West Georgia St

Visit www.performancepc.com to enter the contest for your chance to:

WIN a mini pocket
digital camera from



New @ 50% Off



We've got these and lots more great new titles in at 50% off... come in early for the best selection!



Vancouver
520 West 8th Avenue
604-876-1007
Vancouver
550 Seymour Street
604-688-7791

Burnaby
4269 Lougheed Hwy.
604-291-1033
Victoria
160-2950 Douglas St.
(250) 361-4846

Coquitlam
140 Schoolhouse Road
604-521-3905
Visit Us
www.halfpricecomputerbooks.ca



Motorola V600 Camera Phone

By Robert Khoury

We'd like to thank Motorola Canada (www.motorola.ca) for helping us do this review. Motorola V600 is the flagship of Motorola phones. This phone is feature packed. Almost too many to point out. That's not always a good thing though as I found myself often lost searching for a feature through the menus. As for the clamshell design, all I can say is that it depends on your personal taste. I am not a big fan of the design. I know many people who only go with this design, but from my experience, every time that you have moving mechanical parts in a device, there is going to be problems with it. I found myself constantly slamming the shell shut at least a few times.

I didn't find the manual very helpful as it teaches only the basic features, and leaves the rest for you to figure out. For example, the cell phone has a video playback feature. But there is hardly any mention of what formats it can play, and what the least size of the video files has to be. I found out by trial and error that pictures of a certain size couldn't be viewed on the phone. You can download them onto the phone, but when it's time to see them, you get an error message saying the picture is too big.

Reception

Reception and sound quality wise, this is an awesome phone. Even in very remote, noisy places, I was well heard. The bluetooth earpiece looks good, is compact and the sound quality is great. The V600 is a true world phone. It is a GSM Quad Band. So if you travel abroad and need to use your phone in different parts of the world, this feature really works for you.

Compcorner Monthly Special
 P4 2.8GHz 800FSB System
 Intel 440P CS 400FSB Motherboard
 51200MB 400/1200GB 7200 RPM
 LG 10X DVD/CDRW/Spindle
 Bushman Case Keyboard Mouse
 Reg 1099 - **\$899**

COMP CORNER
 COMPUTER DISTRIBUTION LIMITED
 On-Line Order 800/460-1110
 604-249-1110



604-249-1110

info@compcorner.com

[Home](#)

[Log In](#)

[Specials](#)

[Cart](#)

[Contact Us](#)

Accessories

Barometers

Cameras

Carous

Controllers

Coolers

CPUs

Floppy Drives

Hard Drives

Input Devices

Modems

Monitors

Motherboard

Networking

Notebooks

Optical Devices

Printers

Projectors

RAMs

Scanners

Software

Sound Cards

Speakers

Storage Devices

Systems

Video Cards

Welcome

Compcorner Computer Distribution

8511-8711 Sher Rd
 Richmond V6X 3B6
 Tel: (604) 249-1110
 Fax: (604) 249-1109

E: info@compcorner.com

W: www.compcorner.com

Business Hours:

7708 Burgess St

Burnaby B.C. V3N-3J2

Business Hours:

Mon-Fri 10AM-6:00 PM

Sat: 11AM-5:00 PM

Closed Sun & Holidays

InFocus Projector

X11000 Lumens
 800x600
\$1289

Unitek Router

Wireless
B\$89
G\$89

MB MULTIMEDIA

KEYBOARD+OPTICAL
 WHEEL, MOUSE COMBO

\$29

KDS 17" CRT

Monitor 1600

\$159

TOSHIBA TECHRA

TEGRA A2 PM 1.4GHz 400M
 250MB 14100 400FSB
 80GB 1000X 1000

\$1649

LG DVD/ROM

4081 \$79
4082 \$99

BenQ 15" LCD

15" \$399
17" \$529

Intel 800FSB

Intel Retail Box CPU
3G\$279.99
 2.4A **\$155.99**

HP Colour Laser

2000L **\$899**
 OKI Colour Laser
 with Network **\$789**

DDR 2

PC-4300 DDR
256\$119
512\$259

Canon Pro1 B&W

\$1349
 Sony E28
\$1349

LG 1280N TV

OUT (RETAIL)
\$59

DEI Axia

P4/P420M 800FSB
 HT Dual Channel
\$89

Samsung 170N

SYNOMASTER
 IVORY
\$499

Brother HL-1435

(Beige Color) Up to
 1200 x 600
\$204

BenQ 5300U

Projector
 white/blue 12000H/4000PPI
 480IT 1000:1 50ms
\$69

Maxtor 8Y080LD

80GB 3.5"ATA 833
 T200rpm
\$75

Upgrade Kit

XP2000/XP/2500V
 Motherboard or
\$199
 Celeron 2.4/Via/266MHz
 Motherboard

System Upgrades

Computer Paper
 Office Services
 Government PD Welcome
 Corporate PD Welcome
 Toolkit Setup Mathematics
 Visa Development

Server and Workstation

- Setup
 - Upgrade
 - Troubleshoot
 - Network Setup
 On Site Service
\$49.99/hr

Upgrade Your

System to
 1.0GHz
 128MB DDR
 For Only **\$199**
 Upgrade from
 500 to 850m

Cartridges / Original Ink

Cartridge
 Toner
 Replacement
 Print
\$4.99



Web Design

Data Base
 Graphic
 Basic Web Site setup
 3 pages **\$499** Only
www.johnat.com



Printer and Monitor

Service Center
 Dell
 Service
 Center


Summer Sale

800mhz Celeron
93.5
 P4 2.8GHz Pentium 4 1.8GHz 800FSB
2199
 INTEL P4 2.8GHz 800FSB RETAIL
229
 250mhz AX DVD-R 8X/R HI QUALITY
15
 MS WIRELESS KEY + MOUSE
85
 ECS PAVENUS P4 MOTHERBOARD
53

Build your system at our WWW

Athlon Pro 3100
 17VMM3 All-in-One
 128MB DDR
\$299
 Maxtor 40GB 7200
 LG 52X CDROM
 Keyboard/Mouse/Spk

4P System

SCSI

Maxtor

Canon

brother

AMD/2D

Intel

CD

Intel Office Station

2.4GHz Celeron
 Pentium2 Motherboard
 DDR 256MB 400FSB
 40GB 7200 ATA
 52X CDROM
 On board 10/100
 Keyboard Mouse
\$345

AMD Athlon84 2600+

8GB KB Motherboard
 DDR 512MB 400FSB
 ATI Pro 9600 256VGA
 120GB 7200 SATA
 LG 52X CDROM
 On board 10/100
 Keyboard Mouse
\$850

Intel 2U Server

2.4GHz 1MB Cache
 ASUS Motherboard
 DDR 512MB 400FSB
 120GB 7200 SATA
 52X CD-ROM
 On board 10/100
 Keyboard Mouse
\$799



Battery

The three-hour battery life seemed a bit short for me. It basically means that you either have to charge your battery every night, which is not recommended for batteries, or keep an extra charged battery with you all the time, and that can cost another \$100.

Messaging

This phone is capable of multimedia text messaging. It can send attachments such as pictures, or sound

to other multimedia text messaging cell phones. I tried sending a few multimedia texts to my friends, but none of them could receive the pics. Unless you know for sure that your friends have that capability, it's not a good idea to send them a multimedia message, because they probably won't get it. So there goes another feature that is pretty much useless, unless you are sure of the other person's cell phone capability.

Connectivity Kit

Connectivity has always been an important feature for me. I have too many people on my contact list to sit down and type everyone's phone

**General**

Weight	120g (3.52 / 0.35 / 1.02 / 1.02)
Dimensions	93.5 x 47 x 21.5 mm
Weight	95 g
Design	Crashfold
Antennas	Side
Screen Color	65,536
Screen Size	170 x 220 px
Response	40ms Keyed
Processor/Gallery	1000
Speed Dial	8 entries
Memory	5 MB
Battery Type	700 mAh Li-Ion
Talk Time	3.50
Standby Time	290

Features

Camera	Yes
FM Radio	Optional
Autopilot/Car	Yes

Messaging

EMS	Yes
MMS	Yes
SMS	Yes

Multimedia

Background	170 x 220 px
Games	3DME
Ring Tones	MP3 / MP3+ / 24 chord
Screen Saver	Yes

Streaming Multimedia Yes

Applications

Alarm Clock	Yes
Calculator	Yes
Calendar	1000 entries
E-mail	POP3 / IMAP4 / SMTP
Mobile Chat	Yes
Picture Tel.	Yes
To-Do List	Yes
Voice Commands	20 entries
MP3	2.0

Connectivity

Bluetooth	Yes
IrDA	External
GPS	Yes
Wired Port	Yes
PC Sync	Yes

Connectivity

another to say you can do PerformancePC

numbers one by one from the phone's keyboard. I have no idea what the programmers were thinking when they wrote the phone book application. For every entry you can only enter one number. So if I want to enter someone's home number as well as their email and mobile number, I have to make three different entries. Although this phone has bluetooth, you cannot sync your information unless you pay for the extra connectivity kit. The kit without the USB cable costs \$50, with the cable, \$80. Once I received the software, I installed it, and everything connected beautifully. That was the first and last time that I could get the connectivity. No matter how many times I removed and reinstalled the software, it just wouldn't connect with the phone. That was really disappointing. The idea is great though. To be able to sync your outlook calendar and contacts with your phone is a dream come true. Without that, I don't know anyone who actually uses their calendar and notepad functions on their phones. It just takes too long to type anything for most people. To me, that calendar and notepad feature is just a cosmetic accessory, and not really practical. The one simple time that I did manage to connect the phone to the laptop, I downloaded all the pics that I took with the phone to my laptop, sent SMS messages from the laptop through the cell phone and even connected my laptop to the internet. The only thing I didn't like was that once you pay almost \$600 dollars for a phone, it's something you would expect to get with the package.



#200-2268 No. 8 Road
Richmond, BC V6X 2T1
Tel: (604)276-1619
Fax: (604)276-1638

USB 2.0 12-in-1 Card Reader/Writer



\$ 34.99

Compact Flash Card VII
Smart Media
Memory Stick
Memory Stick Pro
Memory Stick Duo
Memory Stick Duo Pro

IBM Micro Drive
Multi Media Card II
Multi Media Card II
Secure Digital Card
mini SD
xD Picture Card

Visit Our Online Store www.mediasonic.ca
Resellers Welcome !!

Business Hours: 9:00 AM - 5:30PM PST

7-in-1 USB 2.0 Card Reader/Writer with 3 Port USB 2.0 Hub



\$44.99

Transfer file to PC/Mac for Digital Camera,
MP3, PDA, Mobil Phone
Card to Card data transfer
4 Slots Supported 7 types of Flash Cards
Support Self power and bus-powered
No external power required for each port
device under 100mA
Plug-and-Play for PC or Mac
LED indicates each port status

Camera:

The camera is great. The 640 X 480 resolution is double the usual resolution with most camera phones. You have the option to take the pictures with 3 different resolution settings. The auto brightness feature handled the different light situations very well, and gave a consistent bright image 90% of the time. There is a digital 4X zoom.

Display:

The main display screen is sharp and clear. It would have been nice if you could get different font sizes for different profiles. The customizable hotkeys I found to be very useful as I could set them for the applications that I use most frequently. I liked the external display. It's not just for looks, it actually has functionality. The two line display gives information such as time, caller id, battery meter, reception strength, missed calls, blue tooth connection. Below that,

there is a multi color display that flashes different colors when you get calls from different categories in your contact list. The setup of this feature is not that easy though. I spent a lot of time trying to figure this feature out, only to get a call from someone and get a totally different ring tone than the one that I expected.

Conclusion:

In conclusion, if money is not an issue for you, this is a great phone. As for a basic phone, it's dependable, sturdy and has good reception. The camera feature is a lot of fun, and you can actually get decent pictures from it. I admit the phone has a distinct prestigious look about it. It's definitely an eye-catcher. The connectivity features need some refining though. From Rogers AT&T, you can get this phone for \$350 with a 1-year contract, or \$500 with a 2-year contract. ■

Thanks to Motorola (www.motorola.ca)



PROS	CONS
Speakerphone	No Mac support
Good camera	Incomplete manual
Sharp display	The phone looks
True quad band world phone	Dir/alt buttons are recessed compared to
	what is in the norm on the market
Video playback	Connectivity software has a mind of its own,
AM messaging	Can't use the Bluetooth to send messages
	and images to other Bluetooth phones and PDAs.
Excellent reception	
Distinct impressive look	

Neo I Code Software Ltd.

**High Volume, High Capacity
eCommerce site our specialty**

Recent e-commerce projects:
<http://www.bcowinecellar.com>
<http://www.americanmeds.com>

* Bookers / Webmasters / Data Architects welcome
 * Neo Code Software - LAMP Wholesale Software Development

**Stop Spam Now
from \$5/user per month!**

- Stop over 98% of spam from reaching your network with MX Logic's multi-layer spam filtering and analysis.
- Significantly reduce your risk of a virus or worm infection with our double virus protection leveraging leading scanning engines.
- Reduce corporate liability and risk by automatically filtering suspect content and attachments before they reach your network.
- Dealers welcome

www.neocodesoftware.com

#288 - 425 Carrall St., Vancouver, BC, V6B 6E3 | joshua@neocodesoftware.com | Phone 604.638.0068



GAMECUBE

Nintendo GameCube

By Babak Khavari

Thanks to Nintendo Canada (www.nintendo.com) for providing us with the GameCube along with all the accessories to make this review possible. The first thing that hit me when I saw the GameCube was its small compact design. Its nothing compared to the heavy, large Xbox.

If you get the Nintendo GameCube then you get the system itself, a GC controller, video cables, AC cord, and instructions for around \$150 Canadian. Then add another \$100 to get the memory card and a sample game. The system has four controller ports in front of the machine. The GameCube has a 485 MHz processor, a little stronger than the PS2's 300 MHz processor but weaker than the Xbox's 700 MHz. The disc games are half the radius of a normal CD, but they can hold over twice the data of standard CD ROM.

The graphics is not as sophisticated as of Xbox's engine. Nintendo is attractive to players who want the cartoon feel and like of a

Features

- Contemporary color design
- 4 controller ports
- 2 memory card slots
- Capacity for future modem/Internet connection
- 485MHz custom CPU with 162MHz custom graphics processor
- 40MB total memory, 3.8 GB per second memory bandwidth
- 12M polygons per second texture and bandwidth 10.4 GB per second
- 64 audio channels
- Dimensions 4.8" x 1.8" x 6.3"



game. They are not going for audience who want games that simulate reality or for graphic-intense demanding players. The GameCube has a strong library in some areas, but they are weak in many other areas as well. Nintendo's Mario, Metroid and Zelda have their own cult followers. And they are a big success. The

GameCube's library has also taken a lot of heat for being too family-oriented and not providing enough mature games. However, that doesn't mean you have to be a kid to enjoy most of their games. The lack of mature rated games shouldn't be a detriment to the console, rather a scar on the gaming industry for relying on objectionable material to generate interest.

I don't understand why Nintendo did not make GameCube backward compatible with the older Nintendo systems. Even the controllers of the

Absolute Lowest Prices **EVERY DAY!**

TigerDirect.ca

2020年1月第1期

SHOP ONLINE AT www.brownells.com OR CALL 1-800-33-8829

Book Marketing Guide

112 of 112

www.legalprofessionals.org, and www.legalprofessionals.org for updates and information on legislative developments of local, state, and federal laws in the United States and other countries. Although continually and often frequently may require you to understand national, cultural, personal, or regional differences, the Academy of public service law access point limited system performance factors like, practice performance that fluctuates and vary depending on your specific

NOT RECOMMENDED FOR PLACEMENT IN THE THEORETICAL APPROXIMATION SECTION.



older systems are not compatible with GameCube's. A very cool feature is the GameCube being able to connect to GameBoy Advance, allowing secrets to be kept from other players (such as choosing plays in *solo*) and supplementary screens (like a radar that won't have to clog up the screen).

Overall, there is a lot of potential in the GameCube. First of all it is well priced. For around \$230 you are well on your way with a good system with maybe a couple of games. Even though there is a modems connection on the bottom of the unit, if you want to play games online, you're out of luck with the GameCube for now as there are hardly any online games out there for the GameCube. The one thing that would be a real concern for me is the backward incompatibility issue. I want to be able to keep my old games and play them on the upgraded console. ■

Plus	Minus
Design: game console in the modern	Not backward compatible with older games
Design and, well, design	The games are mostly aimed at younger players
Fun games	Can not play CD's or GBA
Great accessories and connectivity	No real online games
Good system for kids	



An Adventure You Might Have Missed: The Legend of Zelda: The Wind Walker

by Andy Koch

The Legend of Zelda: The Wind Walker is yet another successful addition to a series that harkens back to 1986 when the original *Zelda* quickly became one of the most popular video games ever. *Wind Walker* is the latest installment in this epic tale. You will control the winds and sail through an archipelago of fantastical islands, finding treasures to trade, gaining items to save the world from Evil.

The game is a year old already but the world is rendered beautifully in a stylized 3D cartoon-like look and feel that is as good if not better than the animation in Saturday morning cartoons. The characters and creatures you'll encounter as you quest are imaginative and unique and convey a surprising amount of expression in their physical movement.

If you haven't tried this game yet and enjoy adventure games, then don't wait any longer — check it out today. Now that it's a year old, you may be able to find the game on sale or second-hand. ■

Plus
Easy to pickup
Appealing to all ages
Excellent sense of adventure
Beautiful Isometric style graphics and atmosphere

Cons
Lots of talking — will become "boring" games
Managing inventory and button configurations can be awkward
Could have used a power log to keep those quests straight



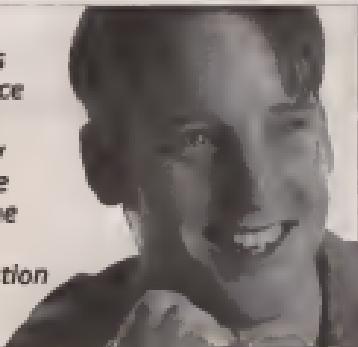
Looking for the *best* hands-on education in **systems, networking, and software development?**

Want to find one of the most **flexible** programs available?

Look no further.

UCFV has got it all, and our students get jobs!

UCFV blends practice with theory to give you the best education



The University College of the Fraser Valley Computer Information Systems program blends practice with theory, and combines state-of-the-art learning environments with on-site co-op education options. We offer:

- Software Development
- User Interface Design
- Advanced Networking
- System Administration
- Object-Oriented Design
- Web Programming
- Database Administration
- Business Skills
- Human Factors
- Team-Building
- Computer Security
- Presentation Skills

We also offer **Continuing Studies** courses in home networking, Linux, and CISCO CCNA and CCNP. See www.ucfv.ca/cis for details. Coming soon: CISCO Security course.

Call 604-854-4589

Visit www.ucfv.ca/cis

Have a lot of **experience** and want **credit** for it?



We have the best hands-on education in systems, networking, and software development

- Modern labs with multiple drives, Linux, Novell, CISCO, Oracle, Windows, and more.
- State-of-the-art advanced networking lab.

A highly flexible program

- Certificate, diploma, and four-year degree programs ladder into each other so you don't need to commit to a long course of study to gain a credential.
- Daytime and evening courses let you continue working while you study.
- September and January intakes mean you to start any time.
- Our accelerated Spring semester allows you to finish your program sooner!

Credit for prior experience

- We offer the most flexible prior-learning assessment and generous credit-transfer approval available anywhere.

UCFV is located only 40 minutes from Vancouver in affordable Abbotsford at the centre of a huge variety of outdoor and cultural activities.

Publisher's Pick

TOP TEN BOOK LIST

ISBN 0735615233

Title: *Word 2003 Step by Step*
 Author: Curtis Frye
 Publisher: Online Training Solutions Inc.



ISBN 0735615241

Title: *Excel 2003 Step by Step*
 Author: Curtis Frye
 Publisher: Online Training Solutions Inc.



ISBN 073561525X

Title: *JavaScript Step by Step*
 Author: Steve Holzner
 Publisher: John Wiley & Sons

Rank	ISBN	Title	Author	Publisher
1	073561525X	Word 2003 Step by Step	Horst Claus	Wiley Press
2	0735615268	Windows XP Step by Step	Morris S. Mattheis	McGraw-Hill Osborne Media
3	0785638182	Teach Yourself Microsoft Windows XP	Ruth Miner	Russel
4	0782143942	From Mac to PC! Savvy	Elton Arnold, Robert Barker	Silvers Books
5	0880510527	Mac OS X 10.3 Panther Missing Manual	David Pogue	Pragmatic
6	0880510527	Mac OS X 10.3 Panther Missing Manual	Mary Flanagan	Horizon Education
7	0880510527	Mac OS X 10.3 Panther Missing Manual	Mary Flanagan	Horizon Education
8	0880510527	Mac OS X 10.3 Panther Missing Manual	Mary Flanagan	Horizon Education
9	0880510527	Mac OS X 10.3 Panther Missing Manual	Mary Flanagan	Horizon Education
10	0880510527	Mac OS X 10.3 Panther Missing Manual	Mary Flanagan	Horizon Education

Rank	ISBN	Title	Author	Publisher
1	073561525X	Word 2003 Step by Step	Horst Claus	Wiley Press
2	0735615268	Windows XP Step by Step	Morris S. Mattheis	McGraw-Hill Osborne Media
3	0785638182	Teach Yourself Microsoft Windows XP	Ruth Miner	Russel
4	0782143942	From Mac to PC! Savvy	Elton Arnold, Robert Barker	Silvers Books
5	0880510527	Mac OS X 10.3 Panther Missing Manual	David Pogue	Pragmatic
6	0880510527	Mac OS X 10.3 Panther Missing Manual	Mary Flanagan	Horizon Education
7	0880510527	Mac OS X 10.3 Panther Missing Manual	Mary Flanagan	Horizon Education
8	0880510527	Mac OS X 10.3 Panther Missing Manual	Mary Flanagan	Horizon Education
9	0880510527	Mac OS X 10.3 Panther Missing Manual	Mary Flanagan	Horizon Education
10	0880510527	Mac OS X 10.3 Panther Missing Manual	Mary Flanagan	Horizon Education

Mac Station**Director's special.**

Save \$400 when you buy DVD Studio Pro 3 and Macromedia Director MX 2004. Add a Power Mac G5 and save an additional \$270.*
 Total rebate = \$670. *See website for details. Offer valid through July 31, 2004.



Shop online at www.inkjetmart.com
 ADDRESS: 1000 20th Street, Suite 100, Fort Lauderdale, FL 33301
 PHONE: 1-800-447-1147 | 305-467-1147 | FAX: 305-467-1148



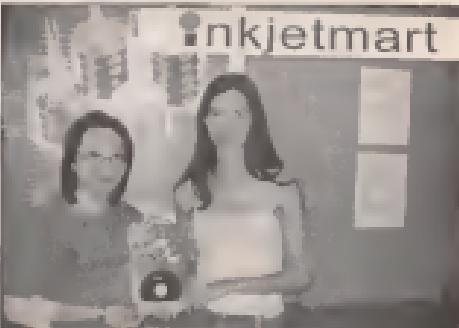
Call 1-800-447-1147
 8:00 a.m. - 5:00 p.m. EST, Monday - Friday



Email: info@inkjetmart.com

PerformancePC**CONTEST WINNER**
of mini pocket digital camera from Inkjetmart

Thanks to all the readers for their support and to all the contestants for taking the time to enter the contest. This month's winner of the Inkjetmart digital camera is Jodi Bye from North Vancouver. Don't forget we have another contest this month, so please go online and enter to win another digital camera from Inkjetmart. Thank you all!





CSPCOMPUTER

TEL: (804) 439-9100 FAX: (804) 439-9130

1553 KINGSWAY, VANCOUVER, BC V5B 5C9

Published: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3608302/>; dx.doi.org/10.1186/1471-2105-13-10; www.biomedcentral.com/1471-2105/13/10

Our online Store is open 24 Hrs. Please visit our Website @ www.easypromotionalbc.ca for Daily Special Prices

Knoppix:



By Keith Schengili-Roberts

install steps. Knoppix is the perfect introduction for anybody wanting to check out Linux without having to commit to it.

Getting and Using Knoppix

What is Knoppix? It is a version of the Linux operating system that comes on a self-booting CD. More than that, it also comes with a collection of useful Linux software, including OpenOffice and much of the tools and programs that come with the popular KDE desktop, including the Konqueror and Mozilla Web browsers. Little to no configuration is necessary, as it uses automatic hardware detection that supports a wide range of graphics cards, sound cards, USB devices and many other peripherals. In the vast majority of cases all you have to do is put Knoppix on your CD drive, and reboot your machine in order to load it up on your system. It manages to cram all of this onto a single CD by using on-the-fly compression, so in fact the CD comes with about 2GB of software on it.

Knoppix requires minimal system requirements to run – you can even run it on an old 486 system with 32MB of RAM, though the faster the machine, the better the performance. The machine will also need to have a bootable CD-ROM drive, standard SVGA-compatible video card along with a standard keyboard or mouse. Despite the low minimum requirements, thanks to the high use of compression used on the CD, anything less than a decent Pentium III machine with a good amount of RAM is likely to yield sluggish performance. Knoppix is based broadly on the Debian version of Linux, a version most popular in continental Europe. Knoppix itself is a originally a German-based project, though its English supporting Website and software are well-translated, especially since it has strong following in the English-speaking world.

But of course in order to be able to use Knoppix you'll first have to obtain a copy of it. Like all major versions of Linux, Knoppix falls under the GNU General Public License which

Have you heard a lot about Linux, and are interested in trying it a try, but have yet to take the plunge? Or maybe you've investigated it, but have balked dedicating a computer system to it, or find the prospect of purchasing an existing drive for a dual boot system too daunting? If you fit into one of these categories, or are simply looking for a simple way of running and using Linux on your existing Windows machine, then Knoppix is worth a look. Knoppix is a version of the Linux operating system that can be run completely from a CD drive, installing itself "on-the-fly" – there's no need for any partitioning or dealing with fiddly

Dealers Welcome!
Compatible Cartridges
Cleaning Cartridges
Laser Toner
Inkjet Refill Kits
Printer Ribbons
Thermal Ribbons
Inkjet Photo Paper

inkjetmart
www.inkjetmart.com

Special Promotion (June 10-17, 2004)

Buy \$20 or more and receive **A Free Gift!** (12 CD holder case or a wheel mouse)

Instant Refill Service
Unbeatable Prices
12.45 - 31.99

Visit www.inkjetmart.com for promotion details

For Fax: 1-888-2833-INK(465)
Marietta • Richmond • Copiague • Bay Shore

Part 1



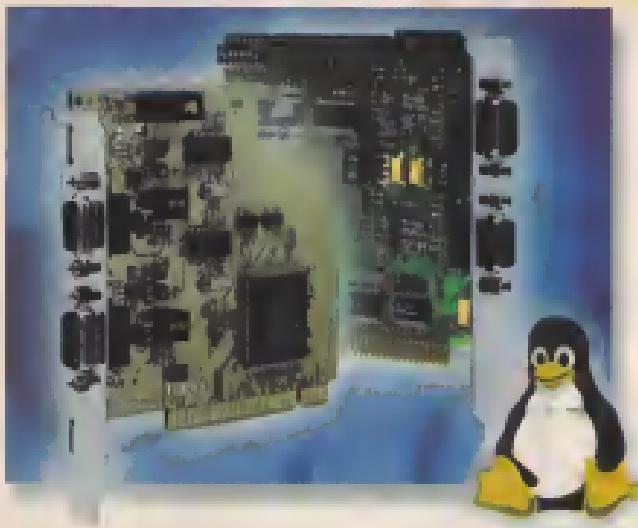
Linux On-the-Fly

effectively means that you can obtain a copy of this software for free. There are many sites you can download the software from, and a full list can be

found at: <http://www.knoppix.net/knoppix-mirror/index-en.html>. If downloading 700MB's worth of files seems daunting, you can buy a copy

from a Knoppix vendor (see: <http://www.knoppix.net/knoppix-vendors/index-en.php> for a list) typically for not much more than the cost of a blank disk and shipping, or ask a friend who has a high-speed connection to download it for you. When you get a single compressed .iso disk image file. To be able to create a bootable CD from this file, you will need a program capable of reading .iso image files – like Nero or Krouse to name only a couple – and being able to write their contents to a standard CD.

Once you've written the .iso file to a standard 700MB CD-R/W, you have to ensure that your machine is capable of booting directly from your CD-ROM drive. This behaviour is typical of more recent machines, and you might want to see whether or not your newly-burned CD will boot into Knoppix for you right off the bat. If not, then you will need to go into your computer's BIOS – which can typically be done by pressing the Delete key while turning on your



www.jetviewcam.com

Jetview Electronics

Surveillance Equipment Video CCTV



4 Ch. DVI Digital
Video Camera Surveillance
over the Internet
\$139



Network Night Vision
Color Camera with
wire \$179



Digital DVI
Color Camera
\$145



Digital DVI
Color Monitor
Camera
\$158



Color Night Vision
Color Camera
\$138



IP Network Camera
No PC Needed!
\$169.99

computer – and tell your computer to look to the CD-ROM drive as one of its list of devices that it can boot from.

Assuming everything has run smoothly (and in the vast majority of cases it should) all you will have to do is hit the Enter key when prompted, and the familiar Linux mascot Tux the penguin will appear, ushering in the Knoppix OS to your system. If you have plenty of RAM on your system (more than 512MB) you can increase Knoppix's performance by loading everything into memory by simply typing in "knoppix nomem" instead of simply hitting Enter with everything being loaded either from your CD or from your system's memory, everything is completely reversible – just remove the CD from its drive and reboot to go back to Windows.

What You Get with Knoppix

So what can you expect from Knoppix the first time you load it? Many users may be surprised to find a surprisingly Windows-like interface, complete with the equivalent of a Start button, icons on your desktop for launching commonly-used applications, even a clock in the lower-right corner. Making your way around this interface is easy, and the interface will be largely familiar to anyone coming from a Windows background.

What is surprising is the number of programs that have been packed onto a



single CD-ROM. In addition to the OS, you get your choice of two popular browsers (Mozilla and Konqueror), video and MP3-playing applications, Internet connection software, data recovery tools, image manipulation software (GIMP), along with OpenOffice, a slate of applications neatly mimicking (and largely compatible with) Microsoft products of similar name. In all you get more than 900 installed software packages with over 2000 separately executable programs, utilities, along with a few simple games to add some fun to the mix.

If you are unsure that Linux will run on your target system, Knoppix is worth trying as a "test" to see whether the proper drivers exist to support your

system. If you can run your computer under Knoppix, then you can be sure that it will run under other popular Linux distributions, such as Red Hat, Fedora, Debian and SuSE.

What Can You Do With It?

There is plenty you can do with Knoppix, other than to see whether or not Linux will run on a given computer system. In addition, Knoppix excels as a data recovery tool and for some system administration and troubleshooting tasks.

If you are looking to recover a system that has crashed so badly that it will no longer boot, Knoppix may also be able to help you out. Its wide range of disk recovery tools – for both Windows and Linux systems – make it possible to recover files off of hard drives that aren't completely dead. The CD also comes with a host of system administration utilities designed to allow you to detect, trace and prevent malicious crackers from getting on to your system.

In many ways Knoppix can be thought of as a "best of" collection of what Linux has to offer the adventurous user – who in this case doesn't have to be too adventurous to run Knoppix, as what is essentially a "no commitment" deal. If you are strongly considering loading a version of Linux on your system, definitely consider trying Knoppix first.

Next Time: Exploring OpenOffice ■



Linux Vigilant POS Single Store or Multi-Stores

We provide complete setup and training.
Wireless / LAN / WAN / Windows / Linux / POS

Free and Stable Linux Operating System

Why Inventory Control System ?

- Tracking Costs (Guaranteed Gross Profit Margin)
- Increased Security
- Reduced Theft
- Increased Sales
- CRM (Customer Profile)
- Faster Profits and Loss
- Full Complete Accounting Included/Optional

Phone For Demo Tel: 604-582-8722 / Cell: 778-889-8722 Microaccess Computer Assistance

Be the Judge...

Summer 2004 Award Categories

- Best store display
- Best store location
- Best store / customer hours
- Best customer service
- Best return policy
- Best shipping policy
- Best selection of software and games
- Best selection of accessories and peripherals
- Best selection of service products
- Best selection of Notebooks / Laptops
- Best selection of post-build systems
- Best selection of brand name parts
- Best source for Intel products
- Best price on upgrade parts
- Best high-speed Internet Service Provider
- Best dial-up Internet Service Provider
- Best web hosting provider
- Best Apple / Macintosh support
- Best selection of Apple / Mac products
- Best inventory system
- Best website to browse
- Best search engine
- Best on-line system builder
- Best shopping cart
- Best order tracking system
- Best store to shop for a gaming system
- Best store to shop for a multi-media system
- Best store to shop for a home office system
- Best store to shop for a value system
- Best store to buy CPU
- Best store to buy RAM
- Best store to buy motherboard
- Best store to buy monitors
- Best store to buy video card
- Best store to buy computer books
- Best store to buy point & shoot digital camera
- Best store to buy Digital SLR Camera
- Best store to buy Printers
- Best store to buy Scanners
- Best store to buy Computer Speakers
- Best store to buy keyboard/mouse
- Best store to buy LCD
- Best store to buy Apple / Mac accessories
- Best store to buy Apple / Mac upgrades

Some of the finest computer dealers are located right here in Greater Vancouver, and they deserve our recognition.

Come and cast your vote to support your favorite dealers, and you'll have a chance to win a mini pocket digital camera.

Simply fax this completed form to 604 638-8888 OR

submit your vote online at www.performancepc.ca/vote

1. 3J Computers	38. Town	75. New Type Computers
2. A City Computer	39. Discovery Computer	76. Merlin Computer
3. AD Microsoft	40. I-Global Computer	77. Maaya Computer
4. ALink	41. Optical Computer	78. PC Computer
5. Computer	42. Birch Computer	79. Phone 1 Systems
6. Accurata Computer	43. Jon Tech Computer	80. Performance Computer
7. Adi Computer	44. Imagine Computer	81. Prime Time Computer
8. Asia Computer	45. Lava Technology	82. Prime
9. Adi Computer	46. F.A Computer	83. Rock Computer
10. Adon Computer	47. Hi Computer	84. Side On Computer
11. Adon Master	48. French Computer	85. SLAC Computer
12. Antech Computer	49. I-3 Computer	86. Sonix Computer
13. AUNIC Computer	50. Seven Computer	87. System Computer
14. Am 3D Computer	51. Sixx Computer	88. T.L. B Computer
15. A-Plus Computer	52. System 10 Computer	89. Tech Tech Computer Systems
16. AD Computer	53. Syng Computer	90. Take A Byte Computer
17. ADP Computer	54. Full Price Computer Books	91. Techpoint Computer
18. Acer Mon	55. Jenson Computer	92. Tigei Books
19. AC Computer	56. 10 Computer	93. Techpoint Computer
20. Accurata Computer	57. Memory Technology	94. Te Tech Computer
21. Accurata Computer	58. Initech (BC)	95. Uni Pro Computer
22. Asia By Design Computer	59. Jenson Computer	96. Unique Personal Computer
23. Blue Collar Computer	60. JBL Computer	97. Shared Computer
24. Boot Workshop	61. Lideep Computer	98. Vortex Computer
25. Business Pro Computer	62. Leo Computer	99. Watch Computer
26. Cal Computer & Conn	63. VGP Advanced Technology	100. W.S. Computer
27. Cal Computer	64. Legend Computer	101. Walnut Grove Computer
28. Canadian Computer	65. Major Computer	102. Webtron Computer
29. CC Computer	66. Main Computer	103. Webtron Computer
30. Day Computer	67. MMS Computer	104. Webtron Computer
31. Delta II Computer	68. MDA (Vancouver)	105. Webtron Computer
32. Comptech Computer	69. Memphis Computer	106. Webtron Computer
33. Compu 2000	70. Micro Computer	107. Webtron Computer
34. Computer Systems	71. Micros King	108. Simply Computing
35. Central Computer	72. Mytech Computer	109. Mac Source
36. CDP Computer	73. NCSA	110. Discount Mac Club
37. Cash Computer & Service	74. Netlink	

Name _____

Address _____

City _____

Province _____

Postal Code _____

Email _____

*winner will be notified by email

Win a Mini Pocket Digital Camera

Visit www.performancepc.ca/vote to enter the contest for your chance to win

PHP – ASP Comparison

By Robert Khouran

PHp and ASP are two popular scripting languages for server side programming. PHP has become the Linux of scripting languages. It started out as a simple language and with the help of the PHP community, has grown to be a very popular and powerful scripting language. One of the biggest advantages of PHP is that it is open source. Some of the advantages of open source software are as follows:

- Open source software is free to use, copy, and modify, which makes it a great deal for clients.
- It is also highly flexible, because it allows the developers to extend the software and customize it for their clients' requirements.
- There are no requirements to purchase commercial licenses and pay continuously for upgrades.

PHP

PHP is cross platform, running on almost every available platform that exists. So whether you are using Linux, Mac, or Windows, or if you ever want to move your programs to another platform, you will not have to change your programs to suit the new OS. Another great advantage of PHP is that much of its syntax is borrowed from C, Java, and PERL, with a couple of unique PHP specific features thrown in. So if you have previous experience with these languages, there is a sharp learning curve.

Source: <http://www.php.net/usage.php>

ASP

ASP (Active Server Pages) is a Microsoft Technology. ASP is not really a language in itself, it's an acronym for Active Server Pages, and the actual language used to program ASP with is Visual Basic Script or JScript. It is closed source, so if you ever encounter a bug or problem you have to report it to Microsoft and have them fix it for you. ASP only runs inside IIS, to run IIS you must have Windows NT 4.0 or later. It is best suited for web-sites having 100 to 300 hits per day. It is a COM based Technology. When an ASP programmer uses VBScript, he is running a COM object. When he writes to the client, he's calling the Response COM object's Write method. When he accesses a database, he uses another COM object to do so. When he accesses the file system, another COM object is called. All this COM overhead adds up and slows things down.

Comparison PHP vs. ASP

Some of the pros of ASP are that since it primarily uses VBScript it is relatively easy to pick the language up if you



already know how to program in Visual Basic. But still, PHP is cheaper to implement and more stable than ASP. On the other hand, because ASP support is enabled by default on the IIS server it is very easy to get up and running. The components built in ASP are really limited, so if you need to use "advanced" features like interacting with FTP servers, you need to buy additional components. All else being equal, PHP is faster than ASP. ASP supports multiple programming languages. This architecture is inherently slower and more memory intensive than PHP's model because each ASP language compiler runs in its own process. So when ASP detects a Begin ASP tag () it will do a context switch back to the HTML parser. One of the most important factors is PHP's security. IIS Server is notorious for its security holes. As for coding, typically the same functionality can be accomplished in less code with PHP than with ASP. This is because the HTTP GET and POST variables are created automatically by PHP as global variables, thus eliminating the step of extracting them from the ASP Request object. Finally, PHP's HTTP header manipulation functions are easier to use than in ASP.



Clustering Technology Solutions

Clustering Technology is the grouping of servers to access very large databases. In a database cluster, data is

	MySQL*	Access*	Oracle*	SQL Server*	
PHP *	Started 19:08:47	Started 19:42:40	Started 19:33:47	Started 19:36:22	MySQL 3.33.40 Microsoft Access 2000 Oracle 8i Personal Edition SQL Server 2000 Standard Edition PHP 4.0.4p11 ASP 3
	Finished 19:09:00	Finished 19:43:08	Finished 19:35:25	Finished 19:37:19	In this test.
	246573 records found	246573 records found	246573 records found	246573 records found	MySQL: The fastest server-side technology was PHP Oracle: The fastest server-side technology is ASP ASP was fastest with MySQL. ASP was fastest with Oracle Slowest client-side and server-side technology was ASP and SQL Server
	13 secs	25 secs	1 min 30 secs.	62 secs	
					Source: http://www.mysql.com/testbench/

distributed over a group of inter-connected databases residing on multiple servers, or nodes. With MySQL Cluster, the databases in the cluster work as one powerful, fault-tolerant database running on low-cost commodity hardware and software.

Linux is perfect for clustering. With clusters, it is fast

enough and with no single point of failure. A cluster of four Linux machines is more reliable and less expensive than an IBM mainframe. The problem with traditional database is that you are constantly in an endless upgrade cycle: MySQL is fully integrated with PHP. This new clustering technology is also available for use with PHP over a spread of many different servers. ASP is only Microsoft technology based, and expansion of any of its modules can be very expensive. □

LocLink Smart Computer Inc.

138-8191 Westminster Hwy, Richmond V6X 1A7 Tel: 604 278 8228 Fax: 604 278 8020 www.linksmartpc.com

Best Buy

Intel Pentium® 2.8GHZ
Sony DVD writer +/-
256MB DDR Memory
80GB Harddisk
Intel 845 Motherboard
MS Keyboard &
Optical Mouse
10/100 Lan
Windows XP Pro
\$999.00

Special \$85.00!!



Sony 4X DWU14A
+/-DVDRW CDRW
with Nero 6.0 OEM

Computer Full Service
New System Repair Web Design
Networking DVR Surveillance System

全線
電腦
服務



AVG Anti-Virus
ANTI-VIRUS. THAT'S IT.



Product
Dealer





eGlobalOnline.com
Making Technology work for You

VISIT US ONLINE @ WWW.EGLOBALONLINE.COM

- ✓ Retail Sales
- ✓ System Upgrades
- ✓ Computer Repairs
- ✓ Onsite Service
- ✓ Network Setup & Maintenance

Tel: 604-872-8278
Toll Free: 1-888-732-1188
Fax: 604-872-8256
Email: info@eglobalonline.com



eGlobal Port Moody Store

Grand Opening

Join Us! July 31, 2004 Exclusive In-store Specials

BENQ DW622A

Beamer, 1000 ANSI lumens, 1024x768



\$84.99

The DW622A delivers superior functionality and performance with over 1000 lumens brightness. Complete 1024x768 resolution, no keystone correction required.

D-LINK DI-634 ROUTER

Wireless 802.11b Router, 4-Port 10/100 Mbps

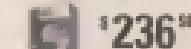


\$39.99

The DI-634 is ideal for anyone searching for a fast, easy and reliable wireless router. It features a secure advanced user

INTEL PENTIUM 4 2.8G

Processor, 2.8GHz, 512K Cache, 800MHz FSB



\$236.99

Get the latest performance in Intel's latest processor. Dynamic cooling system and unique Intel Extreme

256MB PC3200 DDR RAM

256MB DDR RAM, 333MHz, 184-pin SO-DIMM



\$55.99

Upgrading the memory in your PC is the easiest, least expensive affordable way to boost the performance of your PC.

50 PACK CD-R SPINDLE

50 Pack CD-R Spindle



\$9.99

These recordable compact discs feature write speed compatibility of 48X. Each CD-R can store 650MB of audio recording time or 700MB of data.

25 PACK DVD SPINDLE

25 Pack DVD Spindle



\$14.99

DVD media provides reliable and cost effective media for your recording, duplication and storage. Writeup to 1.7GB of data.

ASUS P4P800-E DX

ASUS P4P800-E DX, 4-Port 10/100 Mbps, 800MHz FSB



\$156.99

The P4P800-E DX is a solid choice in an array of motherboards with 800 MHz Pentium 4 (3.4GHz) technology and P4T support.

LG 523X32LS2X CDRW

LG 523X32LS2X CDRW, 52X, 32X, 24X, 12X, 8X, 4X



\$34.99

The 523X32LS2X features a 52X writer and a 32X CD-RW drive. It also includes support for both Superdrive and SuperMulti Disc formats.

3D MINI OPTICAL MOUSE

3D Mini Optical Mouse, 1000 dpi, 3 buttons



\$5.99

Find drivers with this mouse, support mouse is rapidly designed and can output up to 1000 dpi for the easiest mouse pad.

MAXTOR 40GB HD

MAXTOR 40GB, 7200 RPM, 8MB Cache



\$65.99

The MAXTOR 40GB is designed with full feature leading media. This includes increased the rate of the read.

SAMSUNG 173V SILVER

SAMSUNG 173V SILVER, 17", 1280x800, 120Hz



\$489.99

The Samsung SyncMaster 173V is a 17 inch TFT LCD monitor featuring a 1600 x 1200 pixel panel with 16.7 million and 100% sRGB coverage.

335W Dual Fan PSU

335W Dual Fan Power Supply



\$19.99

A 335W 4+4+4, dual fan series 335W power supply designed for personal computer or server applications.

eGlobal PC Builder

Customize your PC, choose Complete PC Options
and you'll receive a PC system or choose a custom build.



- Custom PC
- Custom PC
- Computer built for you
- Using simple, easy and
customized build

1 Year Warranty
on ALL OEM Parts

3 Year Warranty
on Lifetime for all PC Systems
Top retail service and great prices!

Photon Value PC

Intel Celeron 1.3GHz Processor

128MB DDR SDRAM, 128MB AGP 4X Memory

250GB 7200 RPM Hard Drive

16X 120MM CD-RW

16X 80MM CD-RW

100W Power Supply

1000W Case w/ 120mm Fan

1000W Case w/ 12

Company Directory

COMPANIES

A-Plus Computer (p. 13)
2194 East Hastings St.
(604) 670-0966

Mac Station (p. 29)
2004-2010 Brighton Ave.
(604) 429-5234
www.mestation.com

Compu 2000
108-3885 Lougheed Hwy.
(604) 465-2333

Macintosh Computers (p. 29)
1883-4500 Kingsway
(604) 433-5210
www.machintosh.com
sales.machintosh.com

NECXUS (p. 2, 32)
5005 Kingsway
(604) 451-8632
www.necxus.com
sales@necxus.com

A-Link Computer
(604) 438-5233

Alpha Computer
(604) 415-8803

Big Planet Computers
(604) 328-8823

Okato Computers
(604) 433-6880

Ultimate Computers
(604) 528-1770

COMPANIES

Electro Computers (p. 25)
251-403 Pacific Rd.
(604) 831-5003
www.electrocomputers.com
sales@electrocomputers.com

One Tech Computers
(604) 537-4121

FX Computers
(604) 537-5713

Mytech Computer Ltd.
(604) 940-7741

One Plus Computer Inc.
(604) 913-8871

Westwood Computers
(604) 540-0310

DEALER

Acme Computer
(604) 531-2376

COMPANY

ADP Computer
(604) 511-1510

remember to say you saw it in PerformancePC

COMPANIES

Blue Chip Computers
(604) 562-8500
2878 Technology Rd.
2104-20th Ave.
(604) 569-6299

Gecko Computers
(604) 524-5557

Wind River Computers
(604) 589-7673

COMPANIES

Print Tech Computer (p.
(604) 402-8551

TechSmart Computers
(604) 463-2377

Mac Station (p. 29)
22333 1 Langford Highway
(604) 468-0186
www.macstation.com

ADP Computer (p. 25)
100-1200 12th Street
(604) 543-9299

Wind River Computers
(604) 562-8500

Wind River Computer Services
(604) 561-8852

COMPANIES

Acme Com Computer
(604) 584-0247

Computer Depot
(604) 563-9530

i2 Computer
(604) 584-9600

Mac 3 Computer
(604) 588-5880

COMPANIES

Alpha Computer
110-2080 Lougheed Hwy.
(604) 468-0305

Luxx Computer
(604) 545-0011

COMPANIES

One Tech Computer
(604) 537-4120

One Plus Computer
(604) 913-8871

COMPANIES

A-Plus Computer (p. 13)
#201-1211 Kingsway Rd.
(604) 239-8888

Alpha Computer Systems
173-1211 Kingsway Rd.
(604) 231-8870

COMPANIES

Electro Computers (p. 25)
100-2338 No. 3 Rd.
(604) 303-1893
www.electrocomputers.com
sales@electrocomputers.com

Intech Technology Inc.
105-11400 Kingsway Rd.
(604) 214-7703

Link Smart (p. 29)
120-5197 Westminster Hwy.
(604) 278-6228
www.linksmart.ca

City Computer Systems
#150-12980 Kingsway
(604) 521-3447

Compuware (p. 8)
11-18-4871 Shell Road
(604) 248-1110
www.compuware.com
info@compuware.com

EEZ Technologies
240-4111 1st St. PM
(604) 827-1189

Intech Computer
100-2410 10th
(604) 241-0172

i2 Computer
1780-2311 Kingsway Hwy.
(604) 233-0888

Intech Computer (p. 25)
1-288-2523-4465
www.intech.com

Intech Electronics (p. 25)
#208-13088 Kingsway Rd.
(604) 238-1708

ICF Advanced Technology Inc.
(604) 388-9228

MOI Import Inc.
#136-2381 Kingsway Rd.
(604) 280-7800

Microtech (p. 12)
200-2388 No. 3 Road
(604) 238-8618
www.microtech.ca

Performer Computer
(604) 214-8110

Performer Computer (p. 15)
Unit 140-4000 No. 3 Rd.
(604) 717-8811

Performer Computer
www.performer.com
info@performer.com

T-L Computer Inc.
(604) 233-8700

Tristar Computer Systems
(604) 217-0219

One-A-Plus Computers
(604) 271-3222

COMPANIES

Unique Personal Computers
(604) 446-0387

Unitech Computer
10280 12th St.
(604) 588-5839

ADP Computer
10881 136th Street
(604) 530-4538

Acme Computer
(604) 543-9299

Alpha Computer
(604) 251-4000

PC Ally Computer
(604) 542-5787

Sierra Computer Ltd.
(604) 538-0800

NEC Computer
#113-7718-12th Street
(604) 572-8727

Tristar Computer Ltd.
(604) 534-4790

COMPANIES

ADP Computer

Alpha Computer
(604) 433-8888

Intech Computer
3083-33th Street
(604) 430-6551

CBP Computer (p. 25)
2000-1 Kingsway
(604) 438-4100
www.cbpcomputer.bc.ca

Global 1 (p. 25)
#1-18-2381 Kingsway Rd.
(604) 280-7800

Global 1 (p. 25)
#1-18-2381 Kingsway Rd.
(604) 280-7800

Global 1 (p. 25)
#1-18-2381 Kingsway Rd.
(604) 280-7800

Global 1 (p. 25)
#1-18-2381 Kingsway Rd.
(604) 280-7800

Intech Computer
10881 136th Street
(604) 588-5839

NEC Computer (p. 2, 32)
1843 W Broadway
(604) 733-8886

Performer Computer
www.performer.com
sales@performer.com

Performer Computer
10280 12th St.
(604) 588-5839

Performer Computer
www.performer.com
sales@performer.com

COMPANIES

Intech Data / Security Services
2388-305 Main Street
(604) 587-5338

Intech Computer
1011 Forest St.
(604) 587-7330

Intech Recovery
15-1055 W. 11th Street
(604) 581-3710

Platinum Computer
8715 Shubert Street
(604) 321-7791

Lightning Internet (p. 64)
(604) 462-1700
www.lightning.ca
info@lightning.ca

Mac Station (p. 29)
#3-1020 Fraser Street
(604) 689-6227
www.mactation.com

Maccode Software (p. 14)
288-425 Cornall St.
(604) 528-0800
www.maccode.com
sales@maccode.com

Microcom Computer (p. 24)
(604) 543-6723

888 Tech Services Inc.
www.888techservices.com
support@888techservices.com

Skymet West Business Internet Services (p. 4)
(604) 482-1221
www.skymetwest.com
sales@skymetwest.com

Computer Components Inc.
(604) 327-0327

Legend Computer
(604) 279-6880

Such Computer & Service
(604) 428-4556

Microch Computer (p. 13)
3887 Main Street
(604) 873-2343
www.microch.com
sales@microch.com

United Computer
(604) 733-7200

Wester Computer
(604) 221-2338

Tiger Direct (p. 17)
171 Lynn Park Drive
McMurray, Ontario L2B 4J1
1-800 830-8200
www.tigerdirect.ca

Summer Intensive Programs

Register now at Continuing Studies
Web Publisher Certificate
July 5 to July 23
Web Developer Certificate
August 9 to 27
Software Developer Certificate
August 16 to Sept 10

Graduates with a fully functional
website or application.

Computer Science

Professional Computer Science &
Technology Program (PCST)

Applied Computer Science &
Technology Program (ACST)

Internet/Web Computing &
Software Development Program (ICSD)

Register now for September

Computer Information Systems

A two-year diploma program
• Hands-on Linux & Windows 2000
networking & security
• Business systems analysis &
design/e-commerce
• Database design & administration

Information sessions: Room 8145
Wednesday, July 7, 4:00 - 5:00 pm
Wednesday, July 28, 3:00 - 4:00 pm

Get IT.

www.langara.bc.ca

Langara College

Get IT.
Digital
Media
Technology
Programs

Langara College

Call or e-mail now.
604 523-5945
digital@langara.bc.ca



New Technology. New Careers.

